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WATERSHED LESSON #1:

The Best Plans Have Clear Visions, Goals, and Action Items

“I want to be able to see my feet.”

- Bernie Fowler

Visions can rally individuals to take action and to focus their efforts on specific goals. The best visions are graphic in their descriptions and relate to human experience. Bernie Fowler, for example, former Maryland state senator and a leading voice on environmental issues, brought instant attention to the problem of sediment in the Patuxent River when he stood chest high in the river and declared: “I want to be able to see my feet.” At the very least, visions must be scientifically accurate -- represent the facts -- and be understandable to the general public.

So how does a watershed group come up with powerful visions? Experience suggests that before a group can develop visions and goals, there must be a clear and widely recognized problem statement. This statement helps to establish a common understanding of the conditions that warrant a watershed protection effort. The term “problem” does not mean that a water body has to be actually damaged before action can be taken. Just the threat of damage in a pristine watershed may prompt a group to take action.

Clear visions help watershed groups understand, relate to, and support protection and restoration efforts. And, when framed well, they can also help the general public, elected officials, business, the press, and community leaders understand.

In addition to visions, groups usually develop goals, objectives, and action items. The difference among them is explained below.

- A. **Visions** - general statements of where the effort wants to go and what it will accomplish over a given time span (usually 5 to 10+ years). Visions should be comprehensive enough to capture the thrust of the effort’s overall mission.
- B. **Goals** - less general than visions, describe what is needed to obtain vision, refer to components of overall effort, sometimes quantifiable.
- C. **Objectives** - elaboration of goals, describe types of management or activities and are quantifiable where possible*.
- D. **Action Items** - explain who is going to do what, where, and when; they generally articulate how to implement the objectives and should be quantified if possible; benchmarks of existing conditions and/or indicators should be developed for action items.

**Note:* Objectives are optional. Some watershed groups may find that additional level of

detail confusing.

These four elements are folded into an implementation plan. It is desirable to obtain commitments to as many of them as possible.

Many watershed groups go through a facilitated workshop process in which they develop their statements. A facilitator, as a neutral party, can help people reach consensus and avoid getting bogged down in arguing among interests. It is important not to quibble over whether a particular statement becomes a goal or an objective. What is important is to get issues on the table. Designating them can come later. The below examples illustrate some lessons learned in different regions across the nation.

***Chesapeake Bay Watershed:
The 40 Percent Nutrient Reduction Goal Was Perceived as Fair***

***The sum of these options results in a 40 percent nutrient
reduction for each bay tributary.***

In the 1970's, it became increasingly obvious that the Chesapeake Bay was degraded. Bay grasses had died back to a fraction of their historical coverage, large parts of the bay were devoid of oxygen, the water was murky, and some species of fish and shellfish had dramatically declined. An extensive series of scientific studies was undertaken to determine the causes of the problem. By the early 1980's, a scientific consensus emerged that nutrients -- both nitrogen and phosphorus -- were the primary pollution problem in the Bay. Moreover, it was clear that states throughout the Bay's 64,000 square mile watershed were contributing to the pollution problem. In 1983, the first Chesapeake Bay Agreement was signed by the Governors of Maryland, Virginia, and Pennsylvania, the District of Columbia, the Chesapeake Bay Commission (representing the legislative bodies of those states), and the U.S. Environmental Protection Agency. This Agreement represented a vision of creating a regional approach "to improve and protect water quality and living resources of the Chesapeake Bay estuarine system."

In 1987, the second Chesapeake Bay Agreement was signed, which affirmed the regional watershed approach adopted in 1983, and included specific goals to restore water quality. Among the most important was the goal to: "develop, adopt, and begin implementation of a basin-wide strategy to equitably achieve by the year 2000 at least a 40 percent reduction of nitrogen and phosphorus entering the main stem of the Chesapeake Bay. The strategy should be based on agreed-upon 1985 point source loads and on nonpoint loads in an average rainfall year."

A subsequent agreement specified this load in pounds of nitrogen and phosphorus, and allocated it to the Bay jurisdictions. This goal is notable for several reasons:

- It is based on a scientific consensus of perhaps the most well-studied ecosystem in the world;
- The 40 percent reduction is the key to restoring the Bay but is also linked to many other goals;
- It can be communicated to and understood by the general public, elected officials, and others;
- It is specific, quantifiable and can be allocated to particular political jurisdictions or river basins;
- It is perceived as fair, yet flexible. In order to reach the Bay-wide 40 percent nutrient reduction goal, each jurisdiction was assigned a 40 percent nutrient reduction goal. Yet each jurisdiction was free to develop its own strategy to meet that goal, based on local land uses, existing programs, and resources.
- It has the political support of the leaders of the Bay States and the U.S. EPA, as well as the broad support of local governments, the public, and an array of interest groups.

The goal's objectives include implementing the conservation practices needed to achieve the 40 percent nutrient reduction goal. This is being done through the development of Tributary Strategies -- watershed-based plans to reduce nutrient pollution through wastewater treatment plants, agricultural best management practices, and resource protection, and growth management activities. The sum of these options results in a 40 percent nutrient reduction for each bay tributary.

The evolution of the Chesapeake Bay Agreement illustrates the progression from a common vision to a specific goal that is implemented through a series of specific actions. In the Bay watershed, the emphasis has evolved from an initial focus on the main stem of the Bay to the actions taken by individuals and local governments throughout the watershed. Other Bay goals have been established, including those for acres of submerged aquatic vegetation, number of fish passages, and miles of riparian forest. The community is still working on addressing goals associated with growth management, local government involvement, and freshwater streams.

For more information: contact Rich Hall, Maryland Office of Planning, 410-767-4560, 410-225-4480 (fax), Rich@mail.mop.md.gov or Lauren Wenzel, Maryland Department of Natural Resources, LWENZEL@dnr.state.md.us, 410-974-2784, 410-974-2833 (fax).

The State of Oklahoma

Where Visions Must be Embraced by Locals

***The locals were more interested in water for livestock,
while the state was more interested in good water quality.***

For the Illinois River in Oklahoma, the Oklahoma State Conservation Commission (Soil and Water Conservation Agency), “the Commission”, which has the legislative authority for nonpoint source issues, came up with a vision that was not embraced at the local level. At the beginning of their efforts in the Peacheater Creek Watershed demonstration project, the State went to the local community and described for them the impression they had of water quality problems in the creek: nutrients, cattle in the stream, and animal waste. They found, however, that when they went out to view the stream with the landowners, the stream appeared clear; only the reservoir way downstream showed the effects of excessive nutrient loads. The locals were more interested in water for livestock, while the state was more interested in good water quality.

The Commission was able to engage local landowners only when they questioned what the stream was like when the landowners were growing up. Together, they discovered that the stream had been deep and had contained a lot of fish. This contrasted with its present state: wide and shallow with few fish. After establishing the difference, the community was able to isolate the reason for the change: removal of riparian vegetation, cattle in the stream, and stream bank erosion.

The Commission learned lessons that it will apply in future efforts in the Peacheater Creek Watershed and when it undertakes another watershed project:

- First, they will identify local people who care to lead a watershed restoration project. If none can be found, then their energy is better spent in watersheds where there is local interest.
- Second, they will ask the landowners to identify the problems (the first step in developing a vision). The State will limit its role to offering technical, education, and financial assistance.
- Third, the State will not take on the role of facilitator/moderator at the meetings.
- Finally, the State will be careful not to overwhelm citizens with large numbers of bureaucrats. At one night meeting, the State outnumbered landowners 2:1. Needless to say, there was a sense that taxpayer money was going to waste.

For more information: contact, John A. Hassell, Director, Water Quality Programs, Oklahoma Conservation Commission, 1000 West Wilshire, Suite 123, Oklahoma City, Oklahoma, 73116, 405-979-2204, 405-979-2212 (fax), jhassell@occwq.state.ok.us

Lesson from the Tampa Bay National Estuary Program Citizens Relate to Sea Grasses

Charting the Course, the National Estuary Program’s (NEP) Comprehensive Conservation and Management Plan for Tampa Bay, stresses measurable, resource-based

goals that are realistic and achievable. A key goal of the plan is to cap nitrogen loadings at current levels (1992 to 1994 average) to enable the continued recovery of sea grasses, which are important nursery and feeding areas for fish and other marine life. Sea grasses have become a driving force in the bay restoration blueprint because of their importance to the ecosystem. In addition, most citizens can relate to this tangible, resource-based goal.

Since the 1950's, Tampa Bay has lost about 15,000 acres of sea grasses due to excess nutrients, which have fueled the growth of algae and limited the amount of light reaching underwater grass beds. Water quality in Tampa Bay has improved significantly since the 1970's, largely due to improvements in wastewater treatment which have reduced the flow of nitrogen to the bay. Studies by the NEP indicate that an additional 12,000 acres of sea grass can be recovered by preventing future increases in nitrogen loadings. Achieving that goal will require local communities and industries to offset their nitrogen loadings by about 17 tons each year to compensate for anticipated nitrogen increases from growth.

Local governments have agreed to reduce their future loadings by 6 tons per year, that portion of the load attributed to municipal storm water runoff and sewage treatment plants. The remaining reductions will be addressed by a Nitrogen Management Consortium made up of the NEP's local government and agency partners, working with local electric utilities and agricultural and phosphate shipping interests. Instead of allocating specific reductions to each party, the Consortium is working to identify individual or group projects that would achieve the reductions. This innovative approach will help identify the most cost-effective and environmentally beneficial projects.

For more information: contact Holly Greening, National Estuary Program, 813-893-2765, 813-893-2767 (fax).

Key Contacts and Resources

GUIDES FOR PLANNING AND VISIONING

- ***Building a Local Watershed Partnership*** and ***Putting Together a Watershed Plan***, Know Your Watershed. Describes step-by-step process for developing consensus around the purpose statement, measurable goals and objectives, and action items. Conservation Technology Information Center, 1220 Potter Drive, Room 170, West Lafayette, IN 47906, 765-494-9555, 765-494-5969 (fax), kyw@ctic.purdue.edu, <http://ctic.purdue.edu/KYW/KYW.html>
- ***Casco Bay Plan***, Chapter 11: *Developing the Casco Bay Plan* describes the process used to set priorities and develop the plan. Regarded by many as a successful process that made use of focus groups and newspaper inserts. Contact: Katherine Groves, Casco Bay Estuary Project, 246 Deering Avenue, Portland, ME, 04102, 207-780-4820, 207-780-4913 (fax), kgroves@usm.maine.edu
- ***Sourcebook for Watershed Education***, provides details on creating or enhancing

programmatic support for watershed education and problem solving. It includes information on developing program vision and goals, obtaining community support and participation, program review and assessment, and sharing your story with others. Global Rivers Environmental Education Network, 206 South Fifth Avenue, Suite 150, Ann Arbor, MI 48104, <http://www.econet.apc.org/green/> (313) 761-8142

- ***Riverwork Book: A Step-By-Step Guide for Citizens and Communities Developing River Planning and Conservation Efforts***, U.S. Department of Interior/National Park Service, P.O. Box 37127, Room 3606, Washington, D.C. 20013-7127, 202-565-1200, 96 pages. Produced in 1988 (may be updating but still useful). Contacts: Charly Stockman or Jennifer Pitt.
- ***Community Visioning***, video, 2 hours, 1994, \$94.95; APA members \$89.95. Planners Book Service, 122 S. Michigan Ave., Suite 1600, Chicago, IL 60603, 312-786-6344, 312-431-9985 (fax), web address: <http://www.planning.org/books/bookstor.html>

EXAMPLES OF GOALS AND VISIONS

- ***Water Works: Your Neighbors Share Ideas on Working in Partnership for Clean Water***, Tennessee Valley Authority, March 1997. Useful guide. Stories of Daryl Lawon and Shirely Blackwell discuss vision and goals. Kathleen O'Brien, editor, 423-632-8502, 423-632-3188 (fax).
- ***Reducing Agricultural Pesticide Use in Sweden***, *Journal of Soil and Water Conservation*, November-December 1990, Volume 45, Number 6, describes Sweden's goal to cut pesticide use on farms by 50 percent. Contact: Anne Weinberg, US EPA, 401 M St., S.W. 4503F, Washington, D.C. 20460, 202-260-7107 weinberg.anne@epamail.epa.gov
- ***The Visioning Process and Its Role in Consensus-Building***, Richard Volk, Program Director, Corpus Christi Bay National Estuary Program, Corpus Christi, TX, paper delivered at Watershed '96. <http://www.epa.gov/OWOW/watershed/Proceed/volk.html>
- ***EPA Region 3 Chesapeake Bay Program Website***, <http://www.epa.gov/r3chespk/>, EPA BAY PROGRAM WEBSITE ***Patuxent River Tributary Strategy***, <http://www.gacc.com/dnr/Bay/patuxent.html>
- ***1995-2020 Vision for the Nashua River Watershed***, Nashua River Watershed Association, 592 Main Street, Groton, MA 01450, December 1995, 508-448-0299, 508-448-0941 (fax). Nice example of a locally-developed watershed plan with three clear goals and discrete action items.
- ***Diverse Partners with One Vision: The Bear Creek Watershed Restoration Plan*** Carol C. Chandler, Biologist, L. Michelle Beasley, Economist, USDA, Natural Resources Conservation Service, Gallatin, TN paper delivered at Watershed '96. <http://www.epa.gov/OWOW/watershed/Proceed/chandler.html>
- ***Moving the Watershed Planning Process from Quagmire to Success***, B. Fritts Golden, Vice President & Senior Environmental Planner, CH2M HILL, Oakland, CA, John W. Rogers, Senior Vice President & Senior Environmental Planner, CH2M HILL, Philadelphia, PA, paper delivered at Watershed '96. <http://www.epa.gov/OWOW/watershed/Proceed/golden.html>
- ***Maryland's Tributary Strategies: Statewide Nutrient Reduction Through a Watershed Approach***, Lauren Wenzel, Roger Banting, and Danielle Lucid, Maryland Department of

Natural Resources, Annapolis, MD, paper presented at Watershed '96.
<http://www.epa.gov/OWOW/watershed/Proceed/wenzel.html>

NATIONAL PERSPECTIVE

- ***Water Quality Goals and Indicators - Draft February 15, 1996***, Elizabeth Fellows, Mary Belefski, Sarah Lehmann, US EPA, Washington, D.C., Andy Robertson, NOAA, Washington, D.C. paper delivered at Watershed '96,
<http://www.epa.gov/OWOW/watershed/Proceed/fellows.html>
- ***The Keystone National Policy Dialogue on Ecosystem Management***, Final Report, October 1996, result of a dialogue among 50 high ranking representatives from various levels of government, the private sector and important stakeholder interests. Lists the key aspects of making ecosystem protection happen. Includes Regional examples. Keystone Center, CO, P.O. Box 8606, Keystone, CO 80435-7998, 970-468-5822.